REMARKS

The applicant respectfully requests reconsideration in view of the amendment and the following remarks. The applicant has amended claim 6 in order to over come the 35 U.S.C. 112, second paragraph rejection. Support for newly added claims 10-16 can be found in the original claims. In addition, support for newly claim 10 can be found in the original claims 1 and 2.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 4, 5, and 7 are rejected under 35 U.S.C. 102(a) as being anticipated by GB 1190682 ("GB '682"). Claims 2, 3 and 8 are rejected under 35 U.S.C. 103(a) as being obvious over GB '682. The applicant respectfully traverses these rejections.

35 U.S.C. 112 Rejection

Claim 6 is rejected under 35 U.S.C. 112, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicant has amended claim 6 and believe that claim 6 as amended is in compliance with 35 USC 112, second paragraph. For the above reasons, this rejection should be withdrawn.

With respect to the question what does "T min (c)" mean. "T min" is the minimum temperature. (c) is defined in claim 6 as "the instantaneous CH_2O content of the aqueous formaldehyde solution during the evaporation". Therefore, these terms are clearly defined.

Rejection Over GB '682

Claims 1, 4, 5 and 7 were rejected under § 35 U.SC. 102(a) as being anticipated by GB '682. Claims 2, 3 and 8 were rejected under § 35 U.S.C. 103(a) as being unpatentable over GB '682. The Examiner's argument is that GB '682 starts with formaldehyde solution having 36%

by weight formaldehyde. The Examiner asserts that the instant claims are rendered obvious because at each successive evaporation step, the formaldehyde content increases to over 80%. The Examiner refers to page 2, lines 28-44 of GB'682. The applicant respectfully disagrees.

Claim 1 is directed to a process for preparing high-concentration **gaseous** formaldehyde. The essential technical feature of the inventive process is that an aqueous formaldehyde solution having a certain, comparatively high CH_20 content, which is from 50 to 99% by weight, is heated to a certain, **comparatively high evaporation temperature T**, as defined by the relationship in **claim 1**, and a gas phase formed is taken off. The evaporation temperature is set by selection of the pressure during the evaporation process. This is selected so that the resulting evaporation temperature T(p) during the entire evaporation process in which the aqueous formaldehyde starting solution is partly evaporated and the high-concentration gaseous formaldehyde is thus obtained remains above the limit value defined by the relationship, see page 4, lines 21-25 of the instant specification. In example 1, a high concentration formaldehyde solution having a concentration of 84% by weight is heated to a temperature of 155-160^{0}C, and the gas stream, containing from 82-85% by weight of formaldehyde is taken off.

GB '682 is not directed to the production of high-concentration **gaseous** formaldehyde. Quite to the contrary, the gas phase withdrawn from the GB'682 process, which aims at production of high-concentration **liquid** formaldehyde, has a particularly low formaldehyde content. In this respect, col. 3, lines 25-27 of GB '682 states that a condensate from the evaporator (A) contains only 0.45% formaldehyde. According to GB'682, evaporation of the aqueous formaldehyde solutions occurs at temperatures much lower than the temperatures claimed by the formula in claim 1.

According to the example of GB'682, 36% by weight formaldehyde solution is fed to evaporator (B) and evaporated by a temperature as low as 43°C, see col. 2, lines 116-122 and col. 3, lines 17-20 of GB'682. However, according to the invention, a 36% by weight formaldehyde solution corresponds to an evaporation temperature of $68.76 + 124.77 \times 0.36 - 12.85 \times (0.36)^2 - 10.1 \times (0.36)^3 = 111.54°C$ (see the formula in claim 1 with c being (36).

The 84% formaldehyde solution withdrawn from evaporator (C) of GB' corresponds to an evaporation temperature, according to the invention, of 158.5°C, however, the evaporation temperature according to GB' 682 is as low as 62°C only, see col. 3, line 19 of GB'682. Therefore, the applicant's claimed temperature at a concentration of 36% and 84% is over double the temperature of GB '682. The claims are not anticipated by

Again, as detailed above, the instant invention is directed to a process for preparing high concentration gaseous formaldehyde. GB'682 teaches the preparation of high-concentration liquid formaldehyde. Accordingly, the gaseous phase obtained in the concentration process of GB' 682 has a particular low CH_2O content. The evaporation temperatures according to GB'682 are much lower than the temperatures defined by the relationship set forth in claim 1. Therefore, the applicant's claimed invention is not obvious in view GB '682 especially in view of the fact that GB '682 teaches away from the applicant's minimum claimed temperature.

Furthermore, terms appearing in a preamble may be deemed limitations of a claim when they give meaning to the claim and properly define the invention. *In re Paulsen*, 30 F.3d 1475, 1479 (Fed. Cir. 1994); *Catalina Mktg. Int'l., Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) ([A] preamble limits the invention if it recites essential structure or steps, or if it is "necessary to give life, meaning, and vitality" to the claim.). Although no "litmus test" exists as to what effect should be accorded to words contained in a preamble, review of a patent in its entirety should be made to determine whether the inventors intended such language to represent

an additional structural limitation or mere introductory language. *Id.* (*citing Corning Glass Works v. Sumitomo Electric USA, Inc.*, 868 F.2d 1252, 1257 (Fed. Cir. 1989). Accordingly, the PTO has allowed preamble language to be relied upon to distinguish an invention from the prior art. *In re Cruciferous Sprout Litigation*, 301 F.3d 1343, 1347-48 (Fed. Cir. 2002). Read in light of the specification, the claims of the present application clearly describe a gaseous formaldehyde and not a liquid formaldehyde as does GB '682.

In addition, applicant's specification indicates that the claims are directed at **gaseous** formaldehyde specifically (see the title of the invention, the abstract, the specification, for example on the first three pages see, page 1, lines 6-7, page 2, first three paragraphs and page 3, the third, fifth and sixth paragraphs etc.). Addressing facts very similar to those herein, the Federal Circuit held that where the preamble recites additional structure or steps that the specification deems important, the preamble may limit the claims. *See Corning Glass*, 868 F.2d at 1257. In *Corning Glass* the claim in question read: "An optical wave guide comprising..." The specification later went on to define "optical wave guide." The court held that the preamble limited the claim to optical wave guides because "optical wave guide" was later defined in the specification. *Id.*

Similarly, the present invention's specification defines and describes the characteristics of a gaseous formaldehyde. Claim 1 also defines a specific temperature related to a gaseous formaldehyde temperature (the formula in claim 1 for the minimum temperature). It is clear that the definition and characteristics of a gaseous formaldhyde is important to an understanding of what was claimed and as a result the preamble should be given weight.

Here, the preamble of claim 1 contains the word "gaseous" and this should be given patentable weight. GB '682 therefore teaches away from the applicant's claimed invention.

In view of the above response, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 13156-00015-US from which the undersigned is authorized to draw.

Dated: January 17, 2008

Respectfully submitted,

Electronic signature: /Ashley I. Pezzner/
Ashley I. Pezzner
Registration No.: 35,646
CONNOLLY BOVE LODGE & HUTZ LLP
1007 North Orange Street
P. O. Box 2207
Wilmington, Delaware 19899-2207
(302) 658-9141
(302) 658-5614 (Fax)
Attorney for Applicant